NITRIC OXIDE

UN 1660

UN 1975 (Mixture with Dinitrogen Tetroxide)

Shipping Name: UN 1660 Nitric oxide
UN 1975 Nitric oxide and dinitrogen tetroxide mixtures or Nitric oxide and nitrogen dioxide mixture

Other Names: Nitrogen monoxide Nitrogen oxide NO

WARNING!
- POISON! BREATHING THE GAS CAN KILL YOU! SKIN AND EYE CONTACTCAUSES SEVERE BURNS AND BLINDNESS!
- Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!

Hazards:

- Odor is not a reliable indicator of the presence of toxic amounts of gas
- Gas is heavier than air and will collect and stay in low areas
- Container may explode or BLEVE when exposed to heat or fire
- Reacts with steam or water to produce corrosive nitric acid and nitrous acid
- Contact with liquid may cause frostbite
- May interfere with the body's ability to use oxygen

Description:

- Colorless gas
- Shipped and stored as liquefied compressed gas
- Sharp unpleasant odor
- Moderately soluble in water
- Reacts with water to produce corrosive nitric acid and nitrous acid
- Nonflammable but may cause combustibles to ignite
- Gas is heavier than air and will collect and stay in low areas
- A liquid below 43°F

Awareness and Operational Level Training Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay upwind
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of explosion
- Evacuate or shelter in place the immediate area and down wind for a large release
- Notify local health and fire officials and pollution control agencies

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent contaminated runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse gas - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- Cool exposed containers with large quantities of water from unattended equipment or remove containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location
- If cylinders are exposed to excessive heat from fire or flame contact, withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - Inhalation - remove the victim to fresh air and give oxygen if available
  - Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - Swallowed - do not make the victim vomit
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing
- Note to physician: can cause methemoglobinemia; if symptoms indicate, methylene blue is the initial antidote

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